1: Yao Xue Xue Bao. 1998 Jun;33(6):418-23.

Links

[Effects of d-3-n-butylphthalide and l-3-n-butylphthalide on extracellular no level and intracellular cGMP level in primary cultured rat cortical neurons]

[Article in Chinese]

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The effects of l-3-n-butylphthalide(l-NBP) and d-3-n-butylphthalide(d-NBP) on extracellular nitric oxide (NO) levels and intracellular cyclic GMP (cGMP) levels were studied in primary cultured rat cortical neuronal cells. Nitric oxide and cGMP levels were measured by using spectrometry and radioimmunological analysis(RIA), respectively. The results showed that d-NBP (0.1-100 mumol: L-1) markedly increased extracellular NO levels and intracellular cGMP levels in primary cultured neurons that were exposed for 10 h to hypoxic/hypoglycemic, N-methyl-D-aspartate (NMDA), or KCl media. On the contrary, l-NBP (0.1-100 mumol.L-1) significantly decreased extracellular NO levels and intracellular cGMP levels. It is suggested that there is a contrary effect of d-NBP and l-NBP on NO release and cGMP production induced by hypoxia/hypoglycemia, NMDA, or KCl.

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